IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Date: December 19, 2007

Curt L. COTNER   Confirmation No.: 2148

Serial No.: 10/730,192   Group Art Unit: 2168

Filed: December 4, 2003   Examiner: Jay A. MORRISON

For: PACKAGE RESOLUTION MECHANISM FOR DATABASE SYSTEMS

Mail Stop Appeal Briefs – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Dear Sir or Madam:

Appellant submits this Appeal Brief pursuant to the Notice of Appeal filed in this case on September 19, 2007.

I.   REAL PARTY IN INTEREST

The real party in interest is International Business Machines Corporation of Armonk, New York, by virtue of an assignment from the inventor(s) recorded in the U.S. Patent and Trademark Office on December 4, 2003, at Reel No. 014793 and Frame No. 0525.

II.   RELATED APPEALS AND INTERFERENCES

There are no appeals, interferences, or judicial proceedings known to Appellant, the Appellant's legal representative, or Assignee, which may be related to, directly affect, be directly affected by, or have a bearing on the decision by the Board of Patent Appeals and Interferences in the pending appeal.

III.   STATUS OF CLAIMS

Claims 1-18 have been rejected. Appeal is taken from the rejection of claims 1-18.

IV.   STATUS OF AMENDMENTS

No amendments were filed subsequent to the final Office action dated April 19, 2007.

V.   SUMMARY OF CLAIMED SUBJECT MATTER

The present invention relates to "a package resolution mechanism in a database system" (pg. 5, ln. 8). "A system and method in accordance with the present invention provides a new current package path value, which is set via a statement referred to as SET CURRENT PACKAGE PATH. The SET CURRENT PACKAGE PATH statement allows [an] application to supply a precedence list of qualified package collections during execution time, therefore the scheme for resolving packages can be changed at any point during execution. The SET CURRENT PACKAGE PATH statement improves application development by making the package resolution mechanism less error prone and less tedious for the application developer, while providing an optimal-performance solution in the client-server environment" (pg. 4, lns. 12-20).

Independent claim 1 recites a method for providing package resolution in a database system. The method includes providing a database statement within a server (202, 204, 206) of the database system, the database statement allowing an application to identify a list of package collections, wherein each identified package collection includes a plurality of packages and each package is usable during execution of one or more other database statements issued by the application. *See, e.g.*, pg. 6, lns. 3-4; figs. 2-3. The method also includes responsive to issuance of the database statement by the application, executing the database statement to locate at least one of the plurality of packages included in at least

one of the identified package collections. *See, e.g.*, pg. 6, lns. 4-5; figs. 2-3. In addition, the method includes caching the at least one package in a storage of the server (202, 204, 206), the at least one package being used during execution of the one or more other database statements issued by the application. *See, e.g.*, pg. 6, lns. 17-18; figs. 2-3.

Dependent claim 2 recites wherein the database statement is a SET CURRENT PACKAGE PATH statement. *See, e.g.*, pg. 8, lns. 1-15.

Independent claim 6 recites a database server system. The database server system includes a catalog containing a plurality of package collections. *See, e.g.*, pg. 6, ln. 16 to pg. 7, ln. 5; figs. 2-3. The database server system also includes a server (202, 204, 206) coupled to the catalog, the server (202, 204, 206) providing a database statement, the database statement allowing an application to identify a list of package collections from among the plurality of package collections contained in the catalog, wherein each identified package collection includes a plurality of packages and each package is usable during execution of one or more other database statements issued by the application, responsive to issuance of the database statement by the application, executing the database statement to locate at least one of the plurality of packages included in at least one of the identified package collections, and caching the at least one package in a storage of the server (202, 204, 206), the at least one package being used during execution of the one or more other database statements issued by the application. *See, e.g.*, pg. 6, lns. 3-5 and 17-18; figs. 2-3.

Dependent claim 7 recites wherein the database statement is a SET CURRENT PACKAGE PATH statement. *See, e.g.*, pg. 8, lns. 1-15.

Independent claim 11 recites a computer readable medium encoded with a computer program for providing package resolution in a database system. The computer program includes instructions for

providing a database statement within a server (202, 204, 206) of the database system, the database statement allowing an application to identify a list of package collections, wherein each identified package collection includes a plurality of packages and each package is usable during execution of one or more other database statements issued by the application. *See, e.g.*, pg. 6, lns. 3-4; figs. 2-3. The computer program also includes instructions for responsive to issuance of the database statement by the application, executing the database statement to locate at least one of the plurality of packages included in at least one of the identified package collections. *See, e.g.*, pg. 6, lns. 4-5; figs. 2-3. In addition, the computer program includes instructions for caching the at least one package in a storage of the server (202, 204, 206), the at least one package being used during execution of the one or more other database statements issued by the application. *See, e.g.*, pg. 6, lns. 17-18; figs. 2-3.

Dependent claim 12 recites wherein the database statement is a SET CURRENT PACKAGE PATH statement. *See, e.g.*, pg. 8, lns. 1-15.

VI.   GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1.   Appellant requests review as to claims 1-18, and their rejection under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,321,235 to Bird (hereinafter "Bird").

VII.   ARGUMENTS

1.   Claims 1, 6, and 11 Are Not Anticipated by Bird

Claim 1 recites a method for providing package resolution in a database system. The method includes providing a database statement within a server of the database system, the database statement allowing an application to identify a list of package collections, wherein each identified package collection includes a plurality of packages and each package is usable during execution of one

or more other database statements issued by the application, responsive to issuance of the database statement by the application, executing the database statement to locate at least one of the plurality of packages included in at least one of the identified package collections, and caching the at least one package in a storage of the server, the at least one package being used during execution of the one or more other database statements issued by the application.

Bird does not disclose, teach, or suggest the claimed subject matter.

(A)   Bird does not disclose, teach, or suggest "providing a database statement within a server of the database system, the database statement allowing an application to identify a list of package collections, wherein each identified package collection includes a plurality of packages and each package is usable during execution of one or more other database statements issued by the application"

Bird does not disclose, teach, or suggest "providing a database statement within a server of the database system, the database statement allowing an application to identify a list of package collections, wherein each identified package collection includes a plurality of packages and each package is usable during execution of one or more other database statements issued by the application", as recited in claim 1.

In final the Office action, the Examiner states:

> Bird teaches . . . providing a database statement within a server of the database system, the database statement allowing an application to identify a list of package collections, wherein each identified package collection includes a plurality of packages and each package is usable during execution of one or more other database statements issued by the application (application VIOLA has two packages it uses, column 4, lines 20-30; figure 3) . . . .

(April 19, 2007 final Office action, pgs. 2-3).

The passage of Bird cited by the Examiner states:

> In prior versions of "package cache" used by DB2, the package cache was a private memory allocation for each agent Each agent needed to read in the information

from the catalogue tables for each unique package and static SQL statement executed by that agent. For dynamic SQL, each agent needed to compile a statement if a section for that statement did not already exist at the specified section entry of the specified package; this was done even if the agent had already encountered this same statement in a different section entry or package. By way of example, application VOILA has two packages that it uses, Package A and Package B, assume that each package results in the same compilation environment:

> Package A
>> Section Entry 1 has SELECT C1 from T1 (dynamic)
>> Section Entry 2 has SELECT C1 from T1 (dynamic)
> Package B
>> Section Entry 1 has SELECT C1 from T1 (dynamic)

In prior versions of the package cache, three separate compiles would have be done since the dynamic requests would be mapped to a specific section entry within a specific package. In the present invention, each request would visit the global cache where there would be only one entry for SELECT C1 FROM T1 and thus only one compile.

In prior versions of the package cache, the cache was created when the agent was initialized, and was destroyed when the agent was terminated or swapped to work for another application.

(Col. 4, lns. 15-43).

Although Bird mentions packages in the cited passage, it does <u>NOT</u> disclose, teach, or suggest a "database statement allowing an application to identify a list of package collections", as recited in claim 1. For an example of such a "database statement", Appellant respectfully directs to the Examiner to page 8, lines 1-15 of the present application.

In addition, claim 1 recites "providing a database statement . . . [that] allow[s] an application to identify a list of <u>package collections</u>, wherein each identified package collection includes a plurality of packages" (emphasis added). Bird only discusses packages, <u>not</u> "package collections" where each "package collection includes a plurality of packages", as recited in claim 1.

(B)   <u>Examiner has not established anticipation under 35 U.S.C. § 102</u>

Anticipation under 35 U.S.C. § 102 requires the disclosure in a single piece of prior art of each and every limitation of a claimed invention (*see, e.g.*, <u>Electro Med. Sys. S.A. v. Cooper Life Sciences</u>, 34

F.3d 1048, 32 U.S.P.Q.2d 1017, 1019 (Fed. Cir. 1994)). The Examiner has failed to show that Bird discloses each and every element of claim 1.

Therefore, based at least on the reasons above, Appellant respectfully submits that claim 1, and the claims that depend therefrom, are not anticipated by Bird. Since claims 6 and 11 each recite elements similar to those of claim 1, those claims, and the claims that depend therefrom, are not anticipated by Bird for at least the same reasons.

2.   **Claims 2, 7, and 12 Are Further Not Anticipated by Bird**

Claim 2, which depends from claim 1, recites wherein the database statement is a SET CURRENT PACKAGE PATH statement.

Bird does not disclose, teach, or suggest the claimed subject matter.

(A)   Bird does not disclose, teach, or suggest "wherein the database statement is a SET CURRENT PACKAGE PATH statement"

Bird does not disclose, teach, or suggest "wherein the database statement is a SET CURRENT PACKAGE PATH statement", as recited in claim 2.

In final the Office action, the Examiner states:

> Bird teaches . . . the database statement comprising is a SET CURRENT PACKAGE
> PATH statement. (CURRENT FUNCTION PATH, column 7, lines 44-50)

(April 19, 2007 final Office action, pgs. 2-3).

The passage of Bird cited by the Examiner states:

> d) If an SQL statement contains an unqualified function reference (e.g. SELECT
> FOO(C1) FROM T1), then anyone issuing the exact same statement with the exact same
> value in the CURRENT FUNCTION PATH special register will use the exact same function,
> assuming that the current timestamp value is used to resolve the function.

(Col. 7, lns. 44-50).

As seen from cited passage above, the "CURRENT FUNCTION PATH" in Bird cited by the Examiner is <u>NOT</u> a "database statement". Rather, the "CURRENT FUNCTION PATH" in Bird is a "special register".

Even if it is assumed for arguments sake that the "CURRENT FUNCTION PATH" in Bird can be construed as a "database statement", claim 2 recites a "SET CURRENT PACKAGE PATH" database statement, <u>NOT</u> a "CURRENT FUNCTION PATH" database statement.

Thus, the "CURRENT FUNCTION PATH" in Bird <u>CANNOT</u> be construed as disclosing, teaching, or suggesting the "SET CURRENT PACKAGE PATH statement" recited in claim 2.

(B)   <u>Examiner has not established anticipation under 35 U.S.C. § 102</u>

Anticipation under 35 U.S.C. § 102 requires the disclosure in a single piece of prior art of each and every limitation of a claimed invention (*see, e.g.*, <u>Electro Med. Sys. S.A. v. Cooper Life Sciences</u>, 34 F.3d 1048, 32 U.S.P.Q.2d 1017, 1019 (Fed. Cir. 1994)). The Examiner has failed to show that Bird discloses each and every element of claim 2.

Therefore, based at least on the reasons above, Appellant respectfully submits that claim 2 is further not anticipated by Bird. Since claims 7 and 12 each recite elements similar to those of claim 2, those claims are further not anticipated by Bird for at least the same reasons.

CONCLUSION

On the basis of the above remarks, Appellant respectfully submits that the final rejection should be reversed.

Respectfully submitted,
SAWYER LAW GROUP LLP

Dated: _____December 19, 2007_____   _____/Erin C. Ming/_____
                                            Erin C. Ming
                                            Attorney for Applicant
                                            Reg. No. 47,797
                                            (650) 475-1449

APPENDIX OF CLAIMS

1.   (Previously Presented)   A method for providing package resolution in a database system, the method comprising:

providing a database statement within a server of the database system, the database statement allowing an application to identify a list of package collections, wherein each identified package collection includes a plurality of packages and each package is usable during execution of one or more other database statements issued by the application;

responsive to issuance of the database statement by the application, executing the database statement to locate at least one of the plurality of packages included in at least one of the identified package collections; and

caching the at least one package in a storage of the server, the at least one package being used during execution of the one or more other database statements issued by the application.

2.   (Previously Presented)   The method of claim 1, wherein the database statement is a SET CURRENT PACKAGE PATH statement.

3.   (Original) The method of claim 1, wherein the list of package collections include a combination of literals, host variables, keywords, and null string.

4.   (Original) The method of claim 1, wherein each package includes a collection ID and a package ID.

5.   (Previously Presented) The method of claim 1, wherein the database system is a distributed database system.

6.   (Previously Presented) A database server system comprising:

a catalog containing a plurality of package collections; and

a server coupled to the catalog, the server

providing a database statement, the database statement allowing an application to identify a list of package collections from among the plurality of package collections contained in the catalog, wherein each identified package collection includes a plurality of packages and each package is usable during execution of one or more other database statements issued by the application,

responsive to issuance of the database statement by the application, executing the database statement to locate at least one of the plurality of packages included in at least one of the identified package collections, and

caching the at least one package in a storage of the server, the at least one package being used during execution of the one or more other database statements issued by the application.

7.   (Previously Presented) The server system of claim 6, wherein the database statement is a SET CURRENT PACKAGE PATH statement.

8.   (Original) The server system of claim 6, wherein the list of package collections include a combination of literals, host variables, keywords and null string.

9.   (Original) The server system of claim 6, wherein each package includes a collection ID and a package ID.

10. (Previously Presented) The server system of claim 7, wherein the database server system is a distributed database server system.

11. (Previously Presented) A computer readable medium encoded with a computer program for providing package resolution in a database system, the computer program comprising instructions for:

providing a database statement within a server of the database system, the database statement allowing an application to identify a list of package collections, wherein each identified package collection includes a plurality of packages and each package is usable during execution of one or more other database statements issued by the application;

responsive to issuance of the database statement by the application, executing the database statement to locate at least one of the plurality of packages included in at least one of the identified package collections; and

caching the at least one package in a storage of the server, the at least one package being used during execution of the one or more other database statements issued by the application.

12. (Previously Presented) The computer readable medium of claim 11, wherein the database statement is a SET CURRENT PACKAGE PATH statement.

13. (Original) The computer readable medium of claim 11, wherein the list of package collections include a combination of literals, host variables, keywords and null string.

14. (Original) The computer readable medium of claim 11, wherein each package includes a collection ID and a package ID.

15.   (Previously Presented)   The computer readable medium of claim 11, wherein the database system is a distributed database system.

16.   (Previously Presented) The method of claim 1, wherein the database statement is a structured query language (SQL) statement.

17.   (Previously Presented)   The server system of claim 6, wherein the database statement is a structured query language (SQL) statement.

18.   (Previously Presented)   The computer readable medium of claim 11, wherein the database statement is a structured query language (SQL) statement.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None